

### GENERAL TECHNICAL CHARACTERISTICS

|                          |                                                                                         |
|--------------------------|-----------------------------------------------------------------------------------------|
| Reference standards 参考标准 | IEC 61071, IEC 60068                                                                    |
| Dielectric 介质材料          | Polypropylene film                                                                      |
| Construction 封装结构        | Extended metallized film with internal series connection                                |
| Case 外壳材料                | Solvent resistant plastic case with resin sealing. Flame retardant execution (UL94V-0). |
| Leads 引出端                | Tinned copper lugs for screw fixing or soldering on PCBS                                |

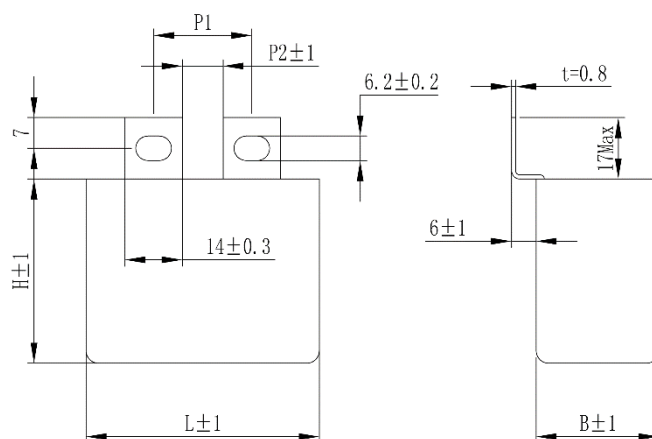
### ELECTRICAL CHARACTERISTICS

|                              |                                                                                                          |
|------------------------------|----------------------------------------------------------------------------------------------------------|
| Operating temperature 工作温度范围 | - 40 to + 105 °C                                                                                         |
| Capacitance range 容量范围       | 0.068 to 14μF                                                                                            |
| Rated voltage range 额定电压     | 700 to 3000 Vdc                                                                                          |
| Capacitance tolerance 容量偏差   | ± 5%, ± 10%                                                                                              |
| Dissipation factor 损耗角正切     | Measured at 1000±20 Hz AND 25±5°C. When Cr≤1.0μF, 5×10 <sup>-4</sup> ; When Cr>1.0μF, 6×10 <sup>-4</sup> |
| Life expectancy 预期寿命         | 100,000 hours at U <sub>NDC</sub> and 70 °C (Hot-spot temperature)                                       |

### TEST METHODS AND PERFORMANCES

|                                                |                                                                                       |
|------------------------------------------------|---------------------------------------------------------------------------------------|
| Dielectric strength 介质强度                       | 1.5 × U <sub>NDC</sub> applied to 10s at 20±5 °C                                      |
| Test voltage terminal to case 端壳耐压             | 3KVAC/50Hz for 10s                                                                    |
| Insulation resistance(IR*C <sub>N</sub> ) 绝缘电阻 | 30000s but need not exceed 30GΩ, after 1 minute of electrification at 100VDC (20±5°C) |

### OUTLINE DRAWING 外形图



### HOW TO ORDER:

| K8F          | 701D          | 155          | K          | S         | B                         | B               | 11      | ***      |
|--------------|---------------|--------------|------------|-----------|---------------------------|-----------------|---------|----------|
| Series Code: | Voltage:      | Capacitance: | Cap. Tol.: | Shape:    | Lug Style:                | Size:           | Lug     | Internal |
| K8F:         | 102D: 1000Vdc | 105: 1.0μF   | J: ± 5%,   | S: Square | B, K, U, C, UF,           | B: bigger size  | Spacing | Code     |
| ASF Series   | 101D: 100Vdc  | 104: 0.1μF   | K: ± 10%   |           | CF, R, G, T, TF,          | S: smaller size | P2      |          |
|              |               | 103: 0.01μF  |            |           | E, L (Refer to next page) |                 | 11mm    |          |

### SPECIFICATIONS

Unit: mm (Max)

| Capacitance<br>(μF)                  | Dimension |      |      | Du/dt<br>(v/μs) | Ipeak<br>A | Irms max<br>A | ESR<br>(mΩ) |
|--------------------------------------|-----------|------|------|-----------------|------------|---------------|-------------|
|                                      | L         | B    | H    |                 |            |               |             |
| Ur 700Vdc, Urms 380Vac, Upk 1000Vdc  |           |      |      |                 |            |               |             |
| 1.5                                  | 42.5      | 24.5 | 27.5 | 132             | 198        | 15.0          | 3.6         |
| 1.5                                  | 42.5      | 17.0 | 28.0 | 132             | 198        | 14.5          | 3.6         |
| 2.0                                  | 42.5      | 33.5 | 35.5 | 132             | 264        | 16.0          | 3.1         |
| 2.0                                  | 42.5      | 22.0 | 30.0 | 132             | 264        | 15.5          | 3.1         |
| 3.0                                  | 42.5      | 33.5 | 35.5 | 132             | 396        | 20.0          | 2.6         |
| 3.0                                  | 42.5      | 28.0 | 37.0 | 132             | 396        | 19.5          | 2.6         |
| 3.3                                  | 42.5      | 33.5 | 35.5 | 132             | 436        | 21.0          | 2.5         |
| 3.3                                  | 42.5      | 28.0 | 37.0 | 132             | 436        | 20.5          | 2.5         |
| 4.0                                  | 42.5      | 33.5 | 35.5 | 132             | 528        | 23.0          | 2.2         |
| 4.0                                  | 42.5      | 28.0 | 37.0 | 132             | 528        | 22.0          | 2.2         |
| 4.7                                  | 42.5      | 33.0 | 45.0 | 132             | 620        | 26.0          | 1.9         |
| 4.7                                  | 42.5      | 30.0 | 45.0 | 132             | 620        | 25.5          | 1.9         |
| 5.0                                  | 42.5      | 33.0 | 45.0 | 132             | 660        | 26.0          | 1.9         |
| 5.0                                  | 42.5      | 30.0 | 45.0 | 132             | 660        | 15.5          | 1.9         |
| 5.6                                  | 42.5      | 33.0 | 45.0 | 132             | 739        | 27.0          | 1.8         |
| 6.8                                  | 57.5      | 30.0 | 45.0 | 90              | 612        | 27.0          | 2.3         |
| 8.2                                  | 57.5      | 35.0 | 50.0 | 90              | 738        | 32.0          | 2.1         |
| 10                                   | 57.5      | 35.0 | 50.0 | 90              | 900        | 32.0          | 1.9         |
| 14                                   | 57.5      | 42.5 | 56.0 | 90              | 1260       | 35.0          | 1.7         |
| Ur 850Vdc, Urms 450Vac, Upk 1200Vdc  |           |      |      |                 |            |               |             |
| 1.2                                  | 42.5      | 24.5 | 27.5 | 200             | 240        | 15.0          | 3.3         |
| 1.2                                  | 42.5      | 17.0 | 28.0 | 200             | 240        | 14.5          | 3.3         |
| 1.5                                  | 42.5      | 22.0 | 30.0 | 200             | 300        | 18.0          | 3.0         |
| 2.0                                  | 42.5      | 33.5 | 35.5 | 200             | 400        | 21.0          | 2.7         |
| 2.0                                  | 42.5      | 28.0 | 37.0 | 200             | 400        | 20.5          | 2.7         |
| 2.2                                  | 42.5      | 33.5 | 35.5 | 200             | 440        | 23.0          | 2.3         |
| 2.2                                  | 42.5      | 28.0 | 37.0 | 200             | 440        | 22.5          | 2.3         |
| 2.5                                  | 42.5      | 33.5 | 35.5 | 200             | 500        | 24.0          | 2.1         |
| 2.5                                  | 42.5      | 28.0 | 37.0 | 200             | 500        | 24.0          | 2.1         |
| 2.7                                  | 42.5      | 33.5 | 35.5 | 200             | 540        | 24.0          | 2.0         |
| 2.7                                  | 42.5      | 28.0 | 37.0 | 200             | 540        | 23.5          | 2.0         |
| 3.0                                  | 42.5      | 33.5 | 35.5 | 200             | 600        | 26.0          | 1.9         |
| Ur 850Vdc, Urms 450Vac, Upk 1200Vdc  |           |      |      |                 |            |               |             |
| 3.3                                  | 42.5      | 33.0 | 45.0 | 200             | 660        | 27.0          | 1.8         |
| 3.3                                  | 42.5      | 30.0 | 45.0 | 200             | 660        | 26.5          | 1.8         |
| 4.0                                  | 42.5      | 33.0 | 45.0 | 200             | 800        | 28.0          | 1.7         |
| 4.7                                  | 57.5      | 30.0 | 45.0 | 110             | 517        | 27.0          | 2.2         |
| 5.0                                  | 57.5      | 30.0 | 45.0 | 110             | 550        | 28.0          | 2.2         |
| 5.6                                  | 57.5      | 35.0 | 50.0 | 110             | 616        | 32.0          | 1.9         |
| 6.8                                  | 57.5      | 35.0 | 50.0 | 110             | 748        | 32.0          | 1.8         |
| 10                                   | 57.5      | 42.5 | 56.0 | 110             | 1100       | 42.0          | 1.2         |
| Ur 1000Vdc, Urms 480Vac, Upk 1400Vdc |           |      |      |                 |            |               |             |
| 1.0                                  | 42.5      | 24.5 | 27.5 | 225             | 225        | 15.0          | 3.3         |
| 1.0                                  | 42.5      | 22.0 | 30.0 | 225             | 225        | 14.5          | 3.3         |
| 1.5                                  | 42.5      | 28.0 | 37.0 | 225             | 338        | 20.0          | 2.7         |
| 2.0                                  | 42.5      | 33.5 | 35.5 | 225             | 450        | 23.0          | 2.1         |
| 2.0                                  | 42.5      | 28.0 | 37.0 | 225             | 450        | 22.5          | 2.1         |
| 2.5                                  | 42.5      | 33.0 | 45.0 | 225             | 563        | 27.0          | 1.8         |
| 2.5                                  | 42.5      | 30.0 | 45.0 | 225             | 563        | 26.5          | 1.8         |
| 3.3                                  | 57.5      | 30.0 | 45.0 | 130             | 429        | 26.0          | 2.4         |
| 4.7                                  | 57.5      | 35.0 | 50.0 | 130             | 611        | 32.0          | 1.9         |
| 6.8                                  | 57.5      | 42.5 | 56.0 | 130             | 884        | 41.0          | 1.3         |

Customization for special specification and requirement is available.

### SPECIFICATIONS

Unit: mm (Max)

| Capacitance<br><br>(μF)              | Dimension |      |      | Du/dt<br><br>(v/μs) | Ipeak<br><br>A | Irms max<br><br>A | ESR<br><br>(mΩ) |
|--------------------------------------|-----------|------|------|---------------------|----------------|-------------------|-----------------|
|                                      | L         | B    | H    |                     |                |                   |                 |
| Ur 1200Vdc, Urms 500Vac, Upk 1600Vdc |           |      |      |                     |                |                   |                 |
| 0.68                                 | 42.5      | 24.5 | 27.5 | 225                 | 153            | 13.0              | 4.1             |
| 0.68                                 | 42.5      | 22.0 | 30.0 | 225                 | 153            | 12.5              | 4.1             |
| 1.0                                  | 42.5      | 28.0 | 37.0 | 225                 | 225            | 17.0              | 3.2             |
| 1.5                                  | 42.5      | 33.5 | 35.5 | 225                 | 338            | 21.0              | 2.6             |
| 1.5                                  | 42.5      | 28.0 | 37.0 | 225                 | 338            | 20.5              | 2.6             |
| 2.0                                  | 42.5      | 33.0 | 45.0 | 225                 | 450            | 26.0              | 2.0             |
| 2.0                                  | 42.5      | 30.0 | 45.0 | 225                 | 450            | 25.5              | 2.0             |
| 2.2                                  | 42.5      | 33.0 | 45.0 | 225                 | 495            | 27.0              | 1.9             |
| 2.2                                  | 42.5      | 30.0 | 45.0 | 225                 | 495            | 26.5              | 1.9             |
| 2.5                                  | 57.5      | 30.0 | 45.0 | 150                 | 375            | 26.0              | 2.4             |
| 2.5                                  | 42.5      | 33.0 | 45.0 | 225                 | 563            | 28.0              | 1.8             |
| 3.0                                  | 57.5      | 35.0 | 50.0 | 150                 | 450            | 30.0              | 2.1             |
| 3.3                                  | 57.5      | 35.0 | 50.0 | 150                 | 495            | 31.0              | 2.0             |
| 3.5                                  | 57.5      | 35.0 | 50.0 | 150                 | 525            | 32.0              | 1.9             |
| 5.6                                  | 57.5      | 42.5 | 56.0 | 150                 | 840            | 38.0              | 1.5             |
| Ur 1500Vdc, Urms 575Vac, Upk 2000Vdc |           |      |      |                     |                |                   |                 |
| 0.33                                 | 42.5      | 24.5 | 27.5 | 225                 | 74             | 12.0              | 5.6             |
| 0.33                                 | 42.5      | 17.0 | 28.0 | 225                 | 74             | 11.5              | 5.6             |
| 0.47                                 | 42.5      | 24.5 | 27.5 | 225                 | 106            | 13.0              | 4.5             |
| 0.47                                 | 42.5      | 18.0 | 31.5 | 225                 | 106            | 12.5              | 4.5             |
| 0.68                                 | 42.5      | 33.5 | 35.5 | 225                 | 153            | 18.0              | 3.8             |
| 0.68                                 | 42.5      | 28.0 | 37.0 | 225                 | 153            | 17.5              | 3.8             |
| 1.0                                  | 42.5      | 33.5 | 35.5 | 225                 | 225            | 21.0              | 2.6             |
| 1.2                                  | 42.5      | 33.0 | 45.0 | 225                 | 270            | 25.0              | 2.1             |
| 1.2                                  | 42.5      | 30.0 | 45.0 | 225                 | 270            | 24.5              | 2.1             |
| 1.5                                  | 57.5      | 30.0 | 45.0 | 150                 | 225            | 23.0              | 3.1             |
| 2.0                                  | 57.5      | 35.0 | 50.0 | 150                 | 300            | 27.0              | 2.3             |
| 2.2                                  | 57.5      | 35.0 | 50.0 | 150                 | 330            | 28.0              | 2.5             |
| 3.5                                  | 57.5      | 42.5 | 56.0 | 150                 | 525            | 35.0              | 1.6             |
| Ur 2000Vdc, Urms 630Vac, Upk 2400Vdc |           |      |      |                     |                |                   |                 |
| 0.22                                 | 42.5      | 24.5 | 27.5 | 410                 | 90             | 11.0              | 6.4             |
| 0.22                                 | 42.5      | 15.0 | 26.0 | 410                 | 90             | 10.5              | 6.4             |
| 0.33                                 | 42.5      | 24.5 | 27.5 | 410                 | 135            | 12.0              | 5.7             |
| 0.33                                 | 42.5      | 22.0 | 30.0 | 410                 | 135            | 11.5              | 5.7             |
| 0.47                                 | 42.5      | 33.5 | 35.5 | 410                 | 193            | 17.0              | 3.8             |
| 0.47                                 | 42.5      | 28.0 | 37.0 | 410                 | 193            | 16.5              | 3.8             |
| 0.56                                 | 42.5      | 33.5 | 35.5 | 410                 | 230            | 18.0              | 3.4             |
| 0.56                                 | 42.5      | 28.0 | 37.0 | 410                 | 230            | 17.5              | 3.4             |
| 0.68                                 | 42.5      | 33.0 | 45.0 | 410                 | 279            | 22.0              | 3.0             |
| 0.68                                 | 42.5      | 30.0 | 45.0 | 410                 | 279            | 21.5              | 3.0             |
| 0.82                                 | 42.5      | 33.0 | 45.0 | 410                 | 336            | 22.0              | 2.7             |
| 0.82                                 | 42.5      | 30.0 | 45.0 | 410                 | 336            | 21.5              | 2.7             |
| 1.0                                  | 57.5      | 30.0 | 45.0 | 225                 | 225            | 22.0              | 3.5             |
| 1.2                                  | 57.5      | 30.0 | 45.0 | 225                 | 270            | 23.0              | 3.3             |
| 1.5                                  | 57.5      | 35.0 | 50.0 | 225                 | 338            | 26.0              | 2.8             |
| 2.5                                  | 57.5      | 42.5 | 56.0 | 225                 | 563            | 38.0              | 1.5             |

Customization for special specification and requirement is available.

### SPECIFICATIONS

Unit: mm (Max)

| Capacitance<br>(μF)                  | Dimension |      |      | Du/dt<br>(v/μs) | Ipeak<br>A | Irms max<br>A | ESR<br>(mΩ) |
|--------------------------------------|-----------|------|------|-----------------|------------|---------------|-------------|
|                                      | L         | B    | H    |                 |            |               |             |
| Ur 2500Vdc, Urms 700Vac, Upk 3000Vdc |           |      |      |                 |            |               |             |
| 0.12                                 | 42.5      | 24.5 | 27.5 | 550             | 66         | 8.0           | 10.3        |
| 0.12                                 | 42.5      | 15.0 | 26.0 | 550             | 66         | 7.5           | 10.3        |
| 0.15                                 | 42.5      | 24.5 | 27.5 | 550             | 83         | 10.0          | 8.5         |
| 0.15                                 | 42.5      | 17.0 | 28.0 | 550             | 83         | 9.5           | 8.5         |
| 0.18                                 | 42.5      | 24.5 | 27.5 | 550             | 99         | 11.0          | 7.3         |
| 0.18                                 | 42.5      | 18.0 | 31.5 | 550             | 99         | 10.5          | 7.3         |
| 0.22                                 | 42.5      | 33.5 | 35.5 | 550             | 121        | 14.0          | 6.1         |
| 0.22                                 | 42.5      | 22.0 | 30.0 | 550             | 121        | 13.5          | 6.1         |
| 0.33                                 | 42.5      | 33.5 | 35.5 | 550             | 182        | 16.0          | 4.5         |
| 0.33                                 | 42.5      | 28.0 | 37.0 | 550             | 182        | 15.5          | 4.5         |
| 0.39                                 | 42.5      | 33.5 | 35.5 | 550             | 215        | 17.0          | 4.0         |
| 0.47                                 | 42.5      | 33.0 | 45.0 | 550             | 259        | 20.0          | 3.5         |
| 0.47                                 | 42.5      | 30.0 | 45.0 | 550             | 259        | 19.5          | 3.5         |
| 0.56                                 | 42.5      | 33.0 | 45.0 | 550             | 308        | 21.0          | 3.1         |
| 0.68                                 | 57.5      | 30.0 | 45.0 | 290             | 197        | 21.0          | 3.9         |
| 1.0                                  | 57.5      | 35.0 | 50.0 | 290             | 290        | 25.0          | 3.1         |
| 1.5                                  | 57.5      | 42.5 | 56.0 | 290             | 435        | 30.0          | 2.1         |
| Ur 3000Vdc, Urms 750Vac, Upk 3500Vdc |           |      |      |                 |            |               |             |
| 0.068                                | 42.5      | 24.5 | 27.5 | 750             | 51         | 7.0           | 14.8        |
| 0.068                                | 42.5      | 15.0 | 26.0 | 750             | 51         | 6.5           | 14.8        |
| 0.10                                 | 42.5      | 24.5 | 27.5 | 750             | 75         | 8.0           | 10.2        |
| 0.10                                 | 42.5      | 17.0 | 28.0 | 750             | 75         | 7.5           | 10.2        |
| 0.12                                 | 42.5      | 33.5 | 35.5 | 750             | 90         | 11.0          | 8.9         |
| 0.12                                 | 42.5      | 22.0 | 30.0 | 750             | 90         | 10.5          | 8.9         |
| 0.15                                 | 42.5      | 33.5 | 35.5 | 750             | 113        | 13.0          | 7.3         |
| 0.15                                 | 42.5      | 28.0 | 37.0 | 750             | 113        | 12.5          | 7.3         |
| 0.18                                 | 42.5      | 33.5 | 35.5 | 750             | 135        | 14.0          | 6.3         |
| 0.18                                 | 42.5      | 28.0 | 37.0 | 750             | 135        | 13.5          | 6.3         |
| 0.22                                 | 42.5      | 33.0 | 45.0 | 750             | 165        | 16.0          | 5.3         |
| 0.22                                 | 42.5      | 28.0 | 37.0 | 750             | 165        | 15.5          | 5.3         |
| 0.33                                 | 42.5      | 33.0 | 45.0 | 750             | 248        | 19.0          | 4.2         |
| 0.39                                 | 57.5      | 30.0 | 45.0 | 370             | 144        | 19.0          | 5.2         |
| 0.47                                 | 57.5      | 35.0 | 50.0 | 370             | 174        | 21.0          | 4.6         |
| 0.56                                 | 57.5      | 35.0 | 50.0 | 370             | 207        | 22.0          | 4.1         |
| 1.0                                  | 57.5      | 42.5 | 56.0 | 370             | 370        | 28.0          | 3.0         |

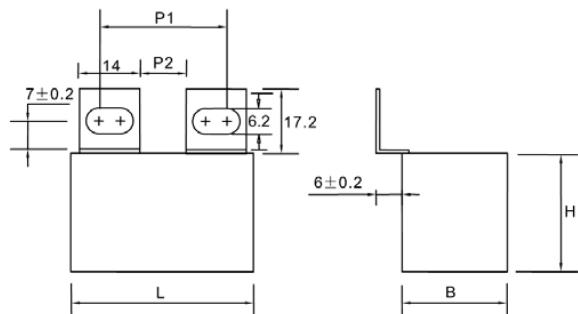
Customization for special specification and requirement is available.

### Lug Dimensions for Plastic Case

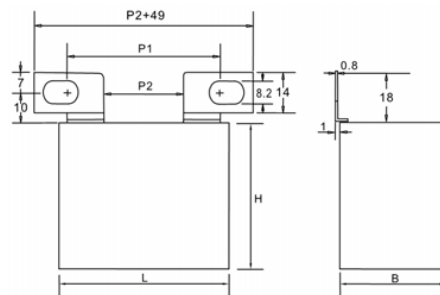
These Lug dimensions suitable for style: B, G, U, UF, E, T and TF

Chose the correct styles according to your assemble way

The dimensions are suitable for STM and STF series.



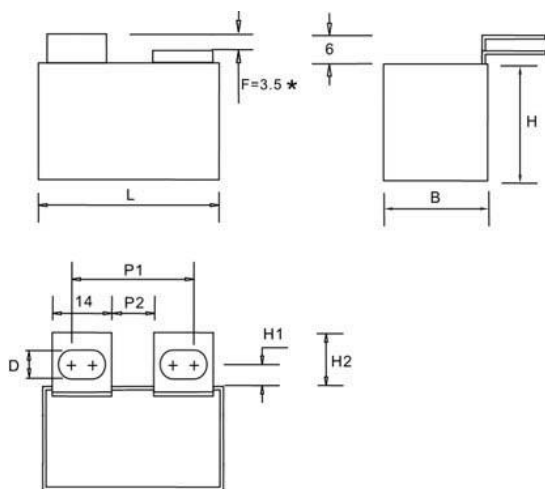
Style B



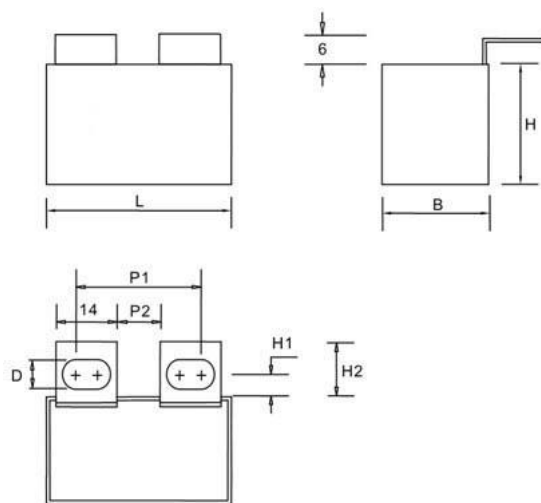
Style G

Fixing pitch and distance between lugs: Style B, Style G

| Style | B  |       |    |       | G  |       |    |       |    |       |
|-------|----|-------|----|-------|----|-------|----|-------|----|-------|
| L     | P2 | P1    | P2 | P1    | P2 | P1    | P2 | P1    | P2 | P1    |
| 42.5  | 11 | 23-28 | 8  | 20-25 |    |       |    |       |    |       |
| 57.5  | 11 | 23-28 | 24 | 37-42 | 17 | 42-51 | 24 | 49-58 | 28 | 53-62 |



Style UF, CF



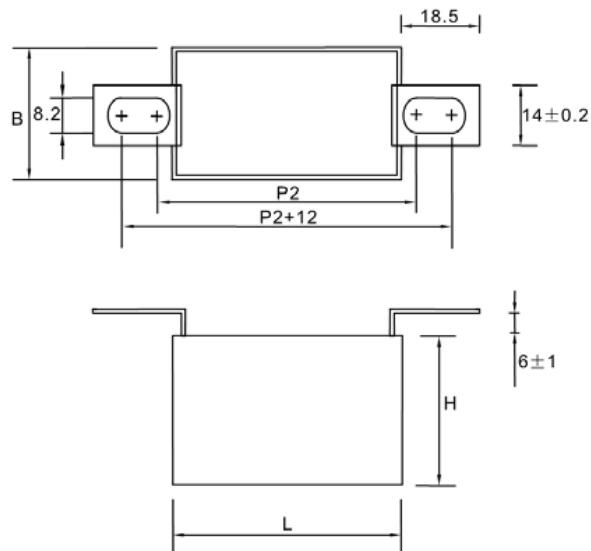
Style U,C

Fixing pitch and distance between lugs: Style C, U, CF, UF

| Style | C CF |       |    |       |    |     |      | U UF |       |    |       |     |     |      |
|-------|------|-------|----|-------|----|-----|------|------|-------|----|-------|-----|-----|------|
| L     | P2   | P1    | P2 | P1    | D  | H1  | H2   | P2   | P1    | P2 | P1    | D   | H1  | H2   |
| 42.5  | 11   | 24-26 | 8  | 21-23 | 82 | 9.5 | 17.5 | 11   | 23-28 | 8  | 20-25 | 6.2 | 7.5 | 14.5 |
| 57.5  | 11   | 24-26 | 24 | 37-39 |    |     |      | 11   | 23-28 | 24 | 37-42 |     |     |      |

F: Maximum values 3.5mm. Should be adjusted according to the dimensions

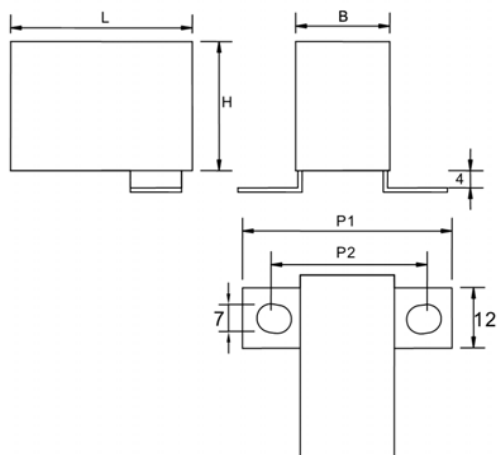
### ■ Lug Dimensions for Plastic Case



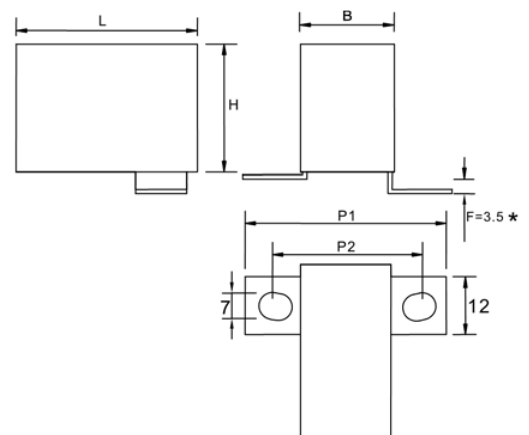
Style E

Fixing pitch and distance between lugs: Style E

| Style | E  |
|-------|----|
| L     | P2 |
| 42.5  | 51 |
| 57.5  | 66 |



Style T



Style TF

Fixing pitch and distance between lugs: Style T, TF

| Style | T TF |    |    |    |    |
|-------|------|----|----|----|----|
| B     | 15   | 17 | 18 | 22 | 28 |
| P1    | 43   | 45 | 46 | 50 | 56 |
| P2    | 30   | 32 | 33 | 37 | 43 |

F: Maximum values 3.5mm. Should be adjusted according to bus dimensions.